

## **CLAIMS**

What is claimed is:

1. A method comprising:  
forming a membrane for a direct socket loading device; and  
attaching the membrane to the direct socket loading device.
2. The method of claim 1 wherein the direct socket loading device is a land grid array device.
3. The method of claim 2 wherein the membrane comprises a flexible, non-conductive material.
4. The method of claim 3 wherein one or more areas of the membrane allow electrical contact between the land grid array and an external device.
5. The method of claim 4 wherein the one or more areas of the membrane that allow electrical contact between the land grid array and an external device are holes formed within the membrane.
6. The method of claim 4 wherein the one or more areas of the membrane that allow electrical contact between the land grid array and an external device are pads incorporated within the membrane.

7. The method of claim 6 wherein the membrane comprises polyimide and the pads incorporated within the membrane are formed by flexible circuit technology.
8. The method of claim 5 wherein each of the holes is formed in the membrane in a location corresponding to a contact of the land grid array.
9. The method of claim 2 wherein the membrane is attached to a frame, the frame formed to connect to a socket of the land grid array.
10. A membrane comprising:  
a flexible film material having formed therein one or more contact areas, each contact area corresponding to a contact of a direct socket loading device.
11. The membrane of claim 10 wherein the direct socket loading device is a land grid array device.
12. The membrane of claim 10 wherein the flexible film material comprises polyimide.
13. The membrane of claim 10 wherein the one or more contact areas are holes formed in the flexible film material.

14. The membrane of claim 10 wherein the one or more contact areas are conductive metal pads incorporated within the flexible film material.
15. A land grid array comprising:  
a socket;  
a plurality of contacts formed on the socket; and  
a membrane covering the plurality of contacts, the membrane having formed therein one or more areas that allow electrical contact between the contacts and an external device.
16. The land grid array of claim 15 wherein the one or more areas of the membrane that allow electrical contact between the contacts and an external device are holes formed within the membrane.
17. The land grid array of claim 15 wherein the one or more areas of the membrane that allow electrical contact between the contacts and an external device are pads incorporated within the membrane.
18. The land grid array of claim 17 wherein the membrane comprises polyimide and the pads incorporated within the membrane are formed by flexible circuit technology.
19. The land grid array of claim 16 wherein each of the holes is formed in the membrane in a location corresponding to a contact of the land grid array.

20. The land grid array of claim 15 wherein the membrane is attached to a frame, the frame formed to connect to the socket.
21. A system comprising:  
a processor; and  
a direct socket loading device coupled to the processor, the direct socket loading device having a membrane attached thereto.
22. The system of claim 21 wherein the direct socket loading device is a land grid array device.
23. The system of claim 22 wherein the membrane comprises a flexible, non-conductive material.
24. The system of claim 23 wherein one or more areas of the membrane allow electrical contact between the land grid array and an external device.
25. The system of claim 24 wherein the one or more areas of the membrane that allow electrical contact between the land grid array and an external device are holes formed within the membrane.

26. The system of claim 24 wherein the one or more areas of the membrane that allow electrical contact between the land grid array and an external device are pads incorporated within the membrane.

27. The system of claim 26 wherein the membrane comprises polyimide and the pads incorporated within the membrane are formed by flexible circuit technology.

28. The system of claim 25 wherein each of the holes is formed in the membrane in a location corresponding to a contact of the land grid array.

29. The system of claim 22 wherein the membrane is attached to a frame, the frame formed to connect to a socket of the land grid array.